

REMARKS

Applicant respectfully requests reconsideration of this application, as amended, and consideration of the following remarks. Claims 1-15 and 17-18 remain pending. Claims 1-15 and 17-18 stand rejected as being unpatentable under 35 U.S.C. 103(a).

Rejections

Rejections under 35 U.S.C. §103(a)

Claims 1-15 and 17-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over US Pat App 2002/0012329 by Atkinson et al. (hereafter the Atkinson reference) in view of US Pat 6,813,777, by Weinberger et al. (hereafter the Weinberger reference). Applicant respectfully traverses these rejections as will be described in more detail below.

The Atkinson reference teaches a system for dynamic, on the fly, operation on or execution of data and/or software instructions transferred between wireless and/or wired devices. In one embodiment, a protocol stack may be used to enable personal networking between a variety of systems and/or devices that utilize Java or Java-like languages, including, but not limited to, systems and devices that operate with WIN 32, Macintosh OS, UNIX, and real-time operating systems. The systems and/or devices may implement Java or Java-like languages and technology in software, hardware, or both.

The Weinberger reference teaches a computer that is used to manage communication over a network between one or more network addressable units and a plurality of physical devices of a passenger entertainment system on an aircraft. The system is configured and operated using software to provide passenger entertainment services including audio and video on-demand, information dissemination, product and service order processing, video teleconferencing and data communication services. The system includes a system server and a network supporting multiple computer processors. The processors and the server comprise application software that control telephony applications and network services. The server is coupled by

way of the network to physical devices of the system. The server comprises software that instantiates a network addressable unit server that interfaces to one or more network addressable units, that instantiates a services server that interfaces to one or more service clients that provide services of the passenger entertainment system, and that instantiates a router and one or more mail slots comprising a lookup table that identify each of the clients. Data comprising a network routing address and a physical device type are used to access the lookup table to determine message destinations. The respective servers interface to their clients by way of named pipes that translate messages from a first format to a second format. The server also comprises software that instantiates intranodal thread processors that route messages between processes on the physical devices and the one or more service clients to route services of the passenger entertainment system to the processes on the physical devices.

As to claims 1, 17 and 18, neither the Atkinson reference nor the French reference, whether considered alone or in combination, discloses nor suggests each and every element of the claimed invention. Specifically, none of the cited references teach or suggest a manager object in the client tier for managing said device-independent applications and wherein the manager object includes logic for creating a registry in the first tier that includes a table of each of said at least one application object class and wherein the registry includes an application object class ID for each of said at least one application object class and logic for allowing a first application object class to be active in the foreground state in a first tier device. The manager object also includes logic for allowing a second application object class to be active in the background state and logic for allowing a third application object class to be inactive in the background state. The manager object also includes logic for receiving a request for access to the foreground state from one of the second application object class or the third application and logic for granting the request for access to the foreground state. The logic for granting the request for access to the foreground state includes logic for placing the first application object class in the background state, logic for placing the requesting application object class in the foreground state and logic for placing the first application object class in a destroy state from the background state.

The Examiner relies on page 1, paragraph 12 through page 2 paragraph 13 of the Atkinson reference to teach “a gateway for preprocessing communications between said client device and said plurality of servers *thereby reducing processing requirements on said client device*” (emphasis added). Applicant submits that page 1, paragraph 12 through page 2 paragraph 13 of the Atkinson reference teaches a communication layer that assembles and reassembles the data for the appropriate protocol of transmission but does not perform any “preprocessing” of the data that will reduce the “processing requirements on said client device” as Atkinson’s client device must similarly extract the data from the protocol formatting that that Atkinson’s communication layer formatted the data into. Applicant therefore maintains the position that Atkinson’s communication layer *does not reduce* the “processing requirements on said client device” as claimed in claims 1, 17 and 18. Specifically, Applicant draws the Examiner’s attention to paragraph 0028 that states in pertinent part:

“The wireless gateway tier 102 is responsible for providing services that lighten the load on the client by doing as much preprocessing as possible and for any protocol translation between the server and the client device. For example, the gateway performs content transformation to WML (Wireless Markup Language) or XHTML, converts from HTTP (Hyper Text Transport Protocol) to WAP, does Byte-code verification, authenticates Java applications, provides push services, and other services.” (emphasis added)

Applicant respectfully disagrees with the Examiner’s characterization and interpretation of the Weinberger reference. The Weinberger reference includes 69 pages of drawings including 113 separate figures and 113 pages containing 228 columns and several tables in the written description. Examiner is relying portions of several disconnected, disparate and distinct embodiments from described in the Weinberger reference. Further, some of the portions relied upon are incorrectly interpreted. Specifically:

The Examiner relies on Column 132, lines 46-52 which reads:

“As NAU processes register with the Message Processor 404, their identities are updated in this table via PipeProcessorClass::AddQueueInfoToLookUpTable(), PipeProcessorClass::AddThreadPointerToLookUpTable() and

PipeProcessorClass::AddPipeHandleToLookUpTable() functions, which include Pipe Handle, Thread Class, Registeree, Queue Class, and Queue Semaphore.”

and Column 51 lines 43-50 which reads:

“Built-in test (BIT) operates continuously as a background task during normal system operation. BIT tests are performed periodically after initialization is complete. Periodic tests are run at least once every 15 seconds. With the exception of LEDs and diagnostic displays of the primary access terminal 225, BIT testing does not interfere with normal operations, and does not generate sounds, lights, or displays.”

and Column 52 lines 35-40 which reads:

“Built-In Test Equipment (BITE) operates as a foreground task in the BITE line replaceable unit state operating via SYSMaint. The BITE line replaceable unit state can be entered from the normal operation state only when the aircraft 111 is on the ground. BITE testing may be intrusive, and are therefore performed only upon demand.”

to teach “remote and portable device that provides switching activity of application between a foreground and background state of an interface using a registry table of identified object classes” (Page 3, paragraph 6 of the current Office Action)

Columns 51 and 52 and the associated Figures 14 and 14a teach well known built in test (BIT) systems and built in test equipment (BITE) systems, respectively. The BIT system operates in the background and is automatically initiated periodic or episodic testing carried out during normal operations. The BITE systems are typically a user initiated special testing function that may occur during normal operations however typically interrupt normal operations.

Further, columns 51 and 52 and the associated Figures 14 and 14a teach that the operations of the BIT systems and BITE systems can be in the “background” and “foreground,” respectively. However, Weinberger teaches that “background” means operating continuously during normal operations and without the specific knowledge or visibility to a user. Weinberger teaches that “foreground” means performed on demand.

In contrast, Applicant defines “background” and “foreground” in the following context of paragraph 50 of the specification:

“...only one application will be active in the foreground at a time. The remaining applications may be in the background. Other applications may be active in the background so long as they are not consuming much resource. For example, one thread could be waiting on a circuit and when it becomes active, it might try to take the foreground by requesting for access from the mobile manager.” (Paragraph 50)

More specifically, the Applicant uses the background and foreground as terms describing a current operating status of a particular application. Multiple applications can be running simultaneously however, one application may be operating in the foreground status due to priority or sequence of operations or because the application that was previously in the foreground was stalled waiting for a data input. One significant distinction between Applicant’s use of the terms background and foreground is that the applications can automatically switch from one status to the other totally independent of in invisible to the input by the user.

While Weinberger and Applicant both use the common terms “background” and “foreground”, the respective usages have completely different meanings. In one interpretation, Weinberger definition of the term “background” can encompass both of the operating status described as “background” and “foreground” by the Applicant as applications operating in either of Applicant’s foreground or background states would not be visible to a user or operator and operate automatically. However, it should be pointed out that most of the operations performed in Weinberger or any other data or computing system would be encompassed by this interpretation of Weinberger’s excessively broad definition of “background.”

Further, neither of Applicant’s usage or definition of the terms “background” and “foreground” could be encompassed by Weinberger usage of the term “foreground.”

Column 132, lines 46-52 teach a very small portion of the operations of the message processor 404 described in Figure 27 et seq. The message processor 404 is a small part of a control center runtime software architecture (PAT and CFS) that is part of the cabin file server that in turn delivers content and other functions in the total entertainment system 100.

Further, the column 132, lines 46-52 is simply a list of classes listed in a table in the message processor 404 and not the same as nor even suggestive of any portion of the Applicant's invention.

The message processor 404 is completely unrelated in function and operation and entirely disconnected from the BIT systems and BITE systems in the many varied embodiments described in the Weinberger reference. There is nothing in the Weinberger reference that even connects the three embodiments the Examiner relies on.

Therefore, Applicant contends that neither of the Atkinson reference nor the Weinberger reference, whether considered alone or in any combination, teaches nor suggests each and every element of the invention as claimed in claims 1, 17 and 18. Accordingly, Applicant contends that claims 1, 17 and 18 are patentable over either of the Atkinson reference or the Weinberger reference, whether considered alone or in combination and therefore respectfully requests these rejections under 35 U.S.C. §103(a) be withdrawn.

As to claims 2-15: each of claims 2-15 depend from claim 1 and are patentably distinct over the Atkinson reference and the Weinberger reference, whether considered alone or in combination, for at least the same reasons as set out above for claim 1. Applicant therefore respectfully request the withdrawal of the rejection of claims 2-15 under 35 U.S.C. §103(a).

SUMMARY

In view of the foregoing amendments and remarks, Applicant respectfully submits that the pending claims are in condition for allowance. Applicant respectfully requests reconsideration of the application and allowance of the pending claims.

If the Examiner determines the prompt allowance of these claims could be facilitated by a telephone conference, the Examiner is invited to contact George B. Leavell at (408) 749-6900, ext 6923.


Deposit Account Authorization

Authorization is hereby given to charge our Deposit Account No. 50-0805 (Ref SUNMP071) for any charges that may be due or credit our account for any overpayment. Furthermore, if an extension is required, then Applicant hereby requests such extension.

Respectfully submitted,

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